200 Area End State Workshop
August 10-11, 2004

Processing Facilities, Buildings, and Structures

Question: In order to develop some very specific tools and perspectives to assist in risk-balancing considerations associated with future risk assessments and remedial/closure decisions, the following questions were posed to solicit stakeholder input and values for process facility end states:

- What end state do you envision for the various classes of facilities (e.g., canyons, plutonium processing facilities, ancillary facilities, waste storage/treatment facilities) on the Central Plateau?
- How do you feel about leaving facilities in place (i.e., fully standing) versus demolishing them?
- Under what situations would you think it appropriate to remove, treat, and dispose of some or all of the waste within and/or under the facility or is consolidation and isolation of waste within the facility a viable option?
- If a canyon facility is left in place or is partially demolished, can additional waste be placed in it?
- How would the potentially high dose rates and hazards to workers encountered during cleanup activities affect these decisions?
- If data collection activities are purposely focused on defining the highest levels of contamination, how important is additional detailed characterization information in making these decisions? How does this change for different end states or hazards?

Common Themes

- Maintain a Core Zone in the 200 Area where site-wide contamination is consolidated.
- Minimize the size of the Core Zone.
- Deal with the highest-risk facilities first, and make decisions regarding whether to leave or demolish facilities based on risk.
- Leave "robust" facilities (e.g., the canyons) in place if the contamination is contained to a similar degree as it would be in an engineered waste disposal facility.
- It makes little sense to demolish facilities and move them to ERDF if they can be made safe where they are.
- Demolish "less robust" facilities that cannot be placed in a configuration that would be protective of the environment. Since PFP is a high-risk facility and its construction makes demolition relatively easy, then get rid of the building and the equipment inside it now. Recent success and lessons learned with 233-S demolition could be utilized.
- Additional waste can be disposed in the canyon facilities because the general feeling is that they will be as protective as, or even more protective than, ERDF.
- People had serious doubts about the effectiveness and duration of institutional controls.
- Develop Waste Acceptance Criteria (WAC) for any waste left inside or waste imported into the canyon buildings.
- Evaluate current worker risks (radiation/chemical exposure, industrial accidents, and maintenance activities) for specific remedial alternatives and compare those risks with the risks that remaining wastes could pose to future generations and the environment.
- There is a need for a comprehensive remedial action work plan for the Central Plateau that integrates all components in a logical, cost-effective, and protective manner and includes life-cycle costs as well as the pros and cons of remedial alternatives.

- There is a need to conduct comprehensive interviews of retired workers to take advantage of their vast process knowledge.
- There is a need for cap monitoring systems to ensure cap performance and mitigation action plans for potential future problems.

Diverse Opinions

- Participants generally accepted the idea that caps will work for canyon facilities and are protective, but some felt that caps are not necessary, and some felt that we would be better off without them. Reasons for not capping included: 1) the large facilities would serve as a reminder of what has been left in the area, and 2) we would cause more environmental damage digging up the huge volumes of borrow source materials needed for these caps.
- A general theme of the workshop was that we cannot rely on institutional controls, but it was not heavily discussed in our breakout groups, probably because the Core Zone concept assumes reliance on institutional controls for quite some time.
- Pipeline discussions included a request to use a consistent, logical approach for all pipelines. Some felt that pipelines should be closely associated with the facilities they served, and others felt that they should be considered separate entities and not tied to any specific facilities.
- Certainly worker safety is a very important consideration, but some felt that we should avoid doing high-risk work and close facilities in place, whereas others felt that the Hanford workers have the expertise to do the high-risk work and that we should do it now while we have the funding and the historical knowledge. There is a difference between informed workers accepting risks today and unknowing members of the public being exposed to risks in the future.
- Reduce the footprint of the Core Zone by consolidating waste. It appeared that moving the waste to reduce the footprint was a much greater concern than the concern over the potential future human health, environmental, and ecological risks/impacts from leaving waste on-site and capping in-place.
- Some participants said to leave the canyon buildings without caps to remind people of the hazards. Others said to leave the canyons as is for 200-300 years so the beta and gamma can decay, then go back and perform the final remedy, which may include caps. The benefits of waiting include reduced worker risk and the possibility of better D&D technologies in the future.
- Consider global climate change and the potential impacts of increased precipitation on future remedial actions (opinion stated by only one individual).